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EXAMINER	
AMRANY, ADI	

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2836	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/506,944	WOBBEN, ALOYS	
	Examiner	Art Unit	
	ADI AMRANY	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-17,19,21-23 and 25-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-17,19,21-23 and 25-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/10/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 10, 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed August 10 have been fully considered but they are not persuasive.

First, Da Ponte discloses a direct current device (18, 20, 22; col. 4, lines 34-44) coupled to the DC bus bar (see figure 1). Da Ponte that based on the two voltage sensors (18, 22) and two reference signals (V_ref2, I_ref2), the Da Ponte control circuit (16) responds to load power demand (col. 5, lines 5-20). Therefore, Da Ponte meets the recited limitation in the independent claims of "a direct current device coupled to the direct current bus bar to detect the electrical power required in the alternating current network."

Second, Da Ponte also discloses that power flow is only unidirectional from the DC bus to the AC bus. As can be easily seen in figure 1, power is supplied from the DC bus (VDC) throw an inverter (14) to an AC bus. Item 14 in figure 1 is an inverter (col. 3, line 64 to col. 4, line 1). The conductor on which the Da Ponte AC waveform is supplied is the AC bus bar.

Similarly, Lundsager discloses only unidirectional power flow from the DC bus to the AC bus. As shown in figure 4.4 (page 32), power flows from left to right, passing from the wind turbine through a rectifier into a DC bus, then through an unlabeled inverter on its way to the AC load.

Applicant's argument that the unidirectional power flow in Lundsager and Da Ponte would change the basic principle of operation of the Wichert system is not persuasive. Applicant points to Wichert figure 4, which shows a bi-directional inverter and argue that replacing that component with one unidirectional inverter would render the system useless. With this statement, the Examiner is in agreement. Applicant, however, has not taken into consideration figures 1-3. Figure 1 shows that the bi-directional inverter is interchangeable with two unidirectional inverters. Thus, Wichert envisions unidirectional power flow between the bus bars. Next, figures 2 and 3 show only unidirectional power flow from a DC bus to the AC load. Thus, Wichert has presented at least one embodiment in which a renewable source is coupled to a DC bus (and a battery) and power is passed through an inverter to the AC bus . As can be seen from the arrows in figures 2 and 3, power flow is only from left to right. There is no power flow from the AC load back to the DC bus.

The only substantive amendment made to the claims has been the addition of the word "only" in claims 1 and 19. Although the Final Rejection (May 8, 2009, page 6) addressed the possible interpretation that the claims did not require all power flow to be unidirectional and suggested the addition of the word, "only," the "only unidirectional" phrase was actually considered in the art rejection. The Final Rejection stated that both

Lundsager (Final, page 6, lines 1-2) and Da Ponte (Final, page 7, lines 12-13) disclose "power flow is unidirectional from the dc bus bar to the ac bus bar." The references show only unidirectional power flow from the dc bus to the ac bus. Applicant has not argued that Lundsager and Da Ponte do not meet this limitation. Instead, applicant has argued against the combination of references. This argument is not persuasive, as discussed above. As the amendment does not overcome the references and the art rejection of the claims is maintained, this Office Action is made Final.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-5, 8-10, 19, 21-23, 26-27, 29, 31 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wichert ("PV-Diesel Hybrid Energy Systems for Remote Area Power Generation – A Review of Current Practice and Future Developments"), in view of Lundsager ("Main Results from Riso's Wind-Diesel Programme"), from applicant's IDS filed 4/2/09, and Da Ponte (US 6,175,217).

Although applicant has amended the claims to change "dc" to "direct current" and "ac" to "alternating current," the original phrasing (dc, ac) is maintained in this Office Action to reduce clutter.

With respect to claim 1, Wichert discloses an isolated electrical network (fig 1 on page 213; page 209, Introduction, lines 1-3) comprising:

at least one first power generator ("wind generator"; page 212, lines 1-3), coupled to a wind turbine to produce electrical power;

at least one intermediate storage device to store electrical power coupled to the first power generator (figs 1-2, "battery bank;" page 222);

a second generator coupled to an internal combustion engine ("diesel engine + alternator");

a dc bus bar (figures 1-2) to feed electrical power from the first power generator and the intermediate storage device into an ac network (via a bi-directional inverter);

a device (obvious) to detect the electrical power required in the network (pages 218-219); and

a controller (fig 2; unlabeled oval) operable to control electrical power provided by the wind turbine that is delivered to the ac network in response to the required electrical power in the ac network being less than the electrical power generated by the first power generator, control the electrical power provided by the intermediate storage device that is delivered to the ac network in response to the required electrical power in the ac network being greater than the electrical power generated by the first power generator, and control electrical power provided by the second generator coupled to the internal combustion engine that is delivered to the ac network in response to the detected electrical power required in the ac network being greater than the electrical power generated by

the first power generator and provided by the intermediate device (page 218 last paragraph through 219, first paragraph, including footnote 7).

Wichert discloses that the regenerative energy system is always on (page 218, footnote 7). The net load, which is the load to be powered by the electrical intermediate storage device and the combustion engine, is calculated *after* the energy produced by the wind turbine is taken into account. Wichert then discloses that the electrical intermediate storage device is discharged before the engine to minimize the usage of the combustion engines. Wichert discloses the claimed 1-2-3 order of activation.

Furthermore, in order to calculate the net load, it is obvious that Wichert includes a device for detecting the electrical power required in the network. Wichert discloses three types of components (fig 1). There are power generators, storage devices, and loads. Wichert discloses computing the net load required by the power suppliers (generators and discharging storage devices).

Wichert discloses (fig 2-3) at least one embodiment in which a renewable energy source is coupled to a dc bus, an inverter, and an ac load, such that power flow is only unidirectional from the dc bus to the ac bus. Since the art rejection of the claims relies mostly on figure 1 and figures 2-3 do not show a wind turbine, the art rejection will follow the interpretation that Wichert does not expressly disclose only unidirectional power flow from the dc bus to the ac bus.

Wichert does not expressly disclose:

A. Only unidirectional flow from the DC bus bar to the AC network;

B. A dc device coupled to the dc bus bar to detect electrical power required in the ac network.

A. Lundsager discloses an isolated electrical network (chapter 4; pages 23-36, figure 4.4), comprising: at least a first power generator coupled to a wind turbine (unlabeled in figure; page 32, second paragraph), at least one intermediate storage device ("battery") coupled to the first power generator, a second generator coupled to an internal combustion engine ("diesel engine"), a dc bus bar (unlabeled in figure) to feed the electrical power from the first generator and the intermediate storage device into an ac network (via unlabeled inverter), power flow being only unidirectional from the dc bus bar to the ac network (page 33, section 4.2.2, "system control and supervision", first two paragraphs of the section).

Lundsager shows that power flow is only unidirectional from the dc bus bar (coupled to the wind turbine and the battery) to the ac bus bar (grid). Lundsager discloses that when the wind turbine is off (fourth paragraph of the section), the inverter is switched off, and power created by the internal combustion engine is not passed to the dc bus bar. Thus, Lundsager discloses unidirectional power flow through the inverter (i.e. the inverter does not act as a rectifier).

Wichert and Lundsager are analogous because they are from the same field of endeavor, namely hybrid energy systems. At the time of the invention by applicant, it would have been obvious to a person of ordinary skill in the art to combine the hybrid energy system disclosed in Wichert with the unidirectional power flow disclosed in

Lundsager in order to allow the wind turbine to power both a backup battery and an electrical grid network. A wind turbine creates ac power. One skilled in the art would recognize that this ac power can be split into two braches; one is passed directly to a grid and the second converted to dc power to recharge a battery (as shown in Wichert). One skilled in the art would also recognize that the ac power can maintain one branch; where the total amount of ac power is converted to dc power to recharge a battery, and then inverted again to ac power to meet the needs of the electrical grid (as shown in Lundsager).

B. Da Ponte discloses an isolated network (fig 1; col. 3-4) comprising: a wind turbine (10; col. 3, lines 57-62), an intermediate storage device (28; col. 4, lines 54-64), a dc bus bar (VDC; col. 3, lines 62-64), only unidirectional power flow from the dc bus bar to the ac network (fig 1 and 7a, item 14; col. 3, line 64 to col. 4, line 1; col. 9, lines 30-33), a dc device (16; col. 4, lines 26-45) coupled to the dc bus bar to detect the power required in the ac network (col. 5, lines 5-57), and a controller (16) to control the supply of power from the various sources.

Wichert, Lundsager and Da Ponte are analogous because they are from the same field of endeavor, namely hybrid energy systems. At the time of the invention by applicant, it would have been obvious to a person of ordinary skill in the art to combine the hybrid energy system disclosed in Wichert and Lundsager with dc device and unidirectional flow disclosed in Da Ponte in order to control output power to a variable load from a variable power source (Da Ponte, col. 4, lines 4-15).

As previously discussed, it would also be obvious to one skilled in the art to compute the Wichert net load from any perspective. Specifically, it would be obvious to label all loads as "ac loads" and detect the electrical power required in the network via the dc bus bar. In this embodiment, the ac bus bar and ac load combine to form one equivalent load. A dc device would be able to detect electrical power required by this equivalent load (which represents the ac network) by sensing the dc power drawn through the bi-directional inverter. Similarly, an ac device would be able to detect power required in dc network. This scenario is further demonstrated in the embodiment in which there are no dc loads (fig 1, lower left component). In this embodiment, electrical power from the dc bus bar can be passed only to the battery and the inverter. When the battery is full, all electrical power being drawn from the dc bus bar is delivered directly to the ac network. Thus, one skilled in the art would be able to detect ac power demand through a dc device. Wichert discloses that the network detects load demand. The network would operate in the same manner regardless of the type of device used (dc or ac).

Further, one skilled in the art would recognize that the Wichert dc bus bar and the Wichert ac bus bar can be divided into multiple parts, such that the bus bars do not connect to multiple components. This is possible because Wichert shows that the dc bus bar and ac bus bar share power via an inverter and a converter. For example, if the ac bus bar were broken into three pieces, then one skilled in the art would recognize the need for three sets of inverters/converters so that the power created by the wind generator could be passed to the ac load (indirectly through the dc bus bar). With the

AC load connected to one piece of the ac bus bar, then power would flow from the dc bus bar through the inverter to the AC load. Power would be delivered directly to the dc bus bar from dc sources or indirectly (via a rectifier) from ac sources. But power flow from the dc bus bar to the ac load would be unidirectional.

With respect to claim 2, Lundsager discloses the first power generator includes a synchronous generator (fig 4.4, IG; page 24, last paragraph) and a converter (fig 4.4) with a dc intermediate voltage circuit having at least one first rectifier (AC/DC converter) and an inverter (DC/AC converter). Lundsager discloses that the flower from the wind turbine is rectified to dc, coupled to the battery, and then inverted to ac.

With respect to claim 3, Wichert further discloses at least one electrical element ("battery bank"; page 211, lines 26-28) coupled to a dc voltage intermediate circuit.

With respect to claim 4, Wichert discloses that the electrical element includes at least one selected from a group consisting of a photovoltaic element, a mechanical energy storage device, an electrochemical storage device, a capacitor, and a chemical storage device (fig 2, page 222).

With respect to claims 5 and 10, Da Ponte discloses one of the storage devices can be a flywheel (col. 1, lines 40-41; col. 3, lines 57-62; col. 7, lines 50-53).

With respect to claim 8, Wichert further discloses a boost/buck converter ("battery charger"; page 222) coupled between the electrical element and the dc voltage intermediate circuit.

With respect to claim 9, Wichert discloses charging/discharging circuits (figs 1-4; "battery charger") coupled between the intermediate storage device and the dc voltage intermediate circuit.

With respect to claims 19 and 21-22, Wichert and Da Ponte disclose the apparatus necessary to complete the recited methods, as discussed above in the rejection of claim 1.

With respect to claim 23, Wichert further discloses delivering energy from electrical intermediate storage devices ("battery bank"; page 211, lines 26-28) to overcome frequency instabilities or deviations in the network power frequency from a desired value.

With respect to claim 26, Wichert further discloses wherein in response to the output electrical power of the first power generator being greater than a power of a load required in the ac network, electrical energy of the first generator is supplied to the intermediate storage device if the intermediate storage device is not full charged (page 222, lines 13-15).

With respect to claim 27, Wichert discloses the wind-power station (fig 1, page 218).

With respect claim 29, Wichert discloses the intermediate storage device is at least one of an accumulator block type and a battery storage device (figs 1-2, "battery bank").

With respect to claim 31, it would be obvious to one skilled in the art to install another generator and internal combustion engine, since it has been held that the mere

duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8 (CCPA 1977).

With respect to claims 34-35, Da Pont discloses at least one intermediate storage device includes a flywheel (col. 3, lines 57-62) or a capacitor (fig 1, item 28; col. 4, lines 54-64).

5. Claims 11-14, 16-17, 25, 28, 30 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wichert in view of Lundsager, Da Ponte and De Zeeuw ("On the Components of a Wind Turbine Autonomous Energy System").

With respect to claim 11, Wichert discloses the generators are operable to use renewable energy sources and the intermediate storage device powers a common dc voltage intermediate circuit (fig 1, "dc bus"). The combined teachings of Wichert, Lundsager and Da Ponte do not expressly disclose additional power generators coupled to a renewable energy source. De Zeeuw discloses an isolated electrical network comprising an additional power generator (fig 1, page 193; col. 2, lines 27-31).

Wichert, Lundsager, Da Ponte and De Zeeuw are analogous because they are from the same field of endeavor, namely, hybrid energy systems. At the time of the invention by applicant, it would have been obvious to combine the hybrid energy system disclosed in Wichert, as modified by the teachings of Lundsager and Da Ponte, with the additional generators disclosed in De Zeeuw in order to guarantee the supply of power by coupling generators to more than one power source.

With respect to claim 12, De Zeeuw discloses a network-commutated inverter (page 193, col. 1, line 44 to col. 2, line 2).

With respect to claim 13, De Zeeuw discloses an electromagnetic coupling ("clutch"), wherein energy to operate the electromagnetic coupling is made available by an electricity storage device and/or by a primary power generator (page 193, col. 2, lines 8-11). It is inherent that the energy for operating the coupling must come from within the isolated system. Although De Zeeuw does not expressly disclose where the power is taken from, it would be obvious to a person of ordinary skill that the wind turbines or the controllable loads would supply the operating power.

With respect to claim 14, De Zeeuw discloses a seawater desalination/service water generation plant connected to the isolated electrical network, wherein the plant generates service water and drinking water in response to the electrical power supplied by the first power generator being greater than power consumption of other electrical loads coupled to the isolated electrical network (page 193, col. 1, lines 1-14). De Zeeuw discloses that the isolated network is designed for supplying electricity to an area where no utility grid exists, and that the network has been used on a coastline. De Zeeuw also provides a discussion on how to prevent salt corrosion on the wind turbine. It would be obvious to a person skilled in the art to use this network in a locale where there are no established sources of electricity or drinkable water. De Zeeuw further discloses that excess energy may be routed to a controllable load (page 193, col. 2, lines 15-20). Therefor, it would be obvious to supply power generated by the isolated electrical network to a seawater desalination/usable water production plant.

With respect to claim 16, De Zeeuw discloses a synchronous generator (SM2; page 193, col. 2, lines 3-10) operable as a network generator, wherein the synchronous

generator operates in a motor mode (page 193, col. 2, lines 11-15, "synchronous compensator") with energy required from the first power generator.

If the internal combustion engine is turned off or disconnected from the system, the only source of energy is the primary power generator (wind turbines). Therefor, it is inherent that the first power generator would power the synchronous generator in motor mode.

With respect to claim 17, De Zeeuw further discloses the synchronous generator is coupled to the internal combustion engine (fig 1; page 193, col. 2, lines 8-11), and the synchronous generator is deactivated when the electrical power of the primary power generator is greater than or approximately the same as electrical power consumption in the isolated electrical network.

With respect to claim 25, De Zeeuw discloses a synchronous generator to serve as a network generator (SM2; page 193, col. 2, lines 3-10) for a network-commutated inverter (page 193, col. 1, line 44 to col. 2, line 2) to feed an alternating current into the network, the synchronous generator works in motor operation (page 193, col. 2, lines 11-15, "synchronous compensator") and a drive of the synchronous generator realizable by providing at least one of energy from a flywheel and electrical energy from a renewable-energy power generator (SM1; page 193, col. 1, lines 15-16).

With respect to claim 28, De Zeeuw discloses the control of the wind-power station (page 193, col. 2, lines 41-46).

With respect to claim 30, Wichert discloses a distributor coupled to the output side of the inverter (fig 4, switch between ac bus and ac load). Wichert discloses controlling the load. The switch controls distribution of power to the load.

With respect to claim 32, De Zeeuw discloses the electromagnetic coupling, as discussed above in the rejection of claim 13.

With respect to claim 33, De Zeeuw discloses using a synchronous generator, as discussed above and Wichert discloses the generator is separated from the isolated electrical network via a switching device (fig 4).

6. Claims 6 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wichert in view of Lundsager, Da Ponte and Jaunich (US 6,605,880).

Wichert, Lundsager and Da Ponte disclose the isolated electrical network according to claim 1, but the references do not combine to expressly disclose a plurality of internal combustion engines, each operable to be coupled to a generator. Jaunich discloses a plurality of secondary generators (col. 3, lines 61-67), where the generators are internal combustion engines (col. 3, lines 46-50).

Wichert, Lundsager, Da Ponte and Jaunich are analogous because they are from the same field of endeavor, namely hybrid energy systems that utilize both a renewable energy source and an internal combustion engine. At the time of the invention by applicant, it would have been obvious to combine the hybrid energy system disclosed in Wichert, as modified by the teachings of Lundsager and Da Ponte, with the multiple internal combustion engines disclosed in Jaunich in order to increase the power

capacity of the isolated electrical network to supply the quantity of power required by the loads.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wichert, in view of Lundsager, Da Ponte and Offringa (EP 046,530 A1).

Wichert, Lundsager and Da Ponte disclose the isolated electrical network according to claim 1, but the references do not combine to expressly disclose a pump storage device is provided, which receives its electrical energy from the primary power generator. Offringa discloses uses variations in a wind turbine's power output to control a pump station, in order to pump water to increased heights (abstract, lines 16-20).

Wichert, Lundsager, Da Ponte and Offringa are analogous because they are from the same field of endeavor, namely hybrid energy systems that utilize both a renewable energy source and an internal combustion engine. At the time of the invention by applicant, it would have been obvious to combine the hybrid energy system disclosed in Wichert, as modified by the teachings of Lundsager and Da Ponte, with having the excess network power supplied to a pump station as disclosed in Offringa in order to apply excess power to a load in order to keep the network power output.

Conclusion

8. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued

examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADI AMRANY whose telephone number is (571)272-0415. The examiner can normally be reached on Mon-Thurs, from 10am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

8-28-09

/Stephen W Jackson/
Primary Examiner, Art Unit 2836